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10/767,829	01/28/2004	Yves Borlez	8089-cont	6612

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EXAMINER	
DINH, TRINH VO	
ART UNIT	**PAPER NUMBER**
2821	

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/767,829	BORLEZ ET AL.	
	Examiner	Art Unit	
	Trinh Vo Dinh	2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 07/30/2004.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 24-50 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) 50 is/are allowed.

6)☒ Claim(s) 24-49 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 10/122,553.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 07/30/04.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. The claims are objected to because they include reference characters which are not enclosed within parentheses.

Reference characters corresponding to elements recited in the detailed description of the drawings and used in conjunction with the recitation of the same element or group of elements in the claims should be enclosed within parentheses so as to avoid confusion with other numbers or characters which may appear in the claims. See MPEP § 608.01(m).

In claim 24, lines 4-5, the reference character 34, 36, 38, 41, 42, 44, 46, 49, 40, 48, 50 should be enclosed within parenthesis.

2. Claims 25-45 and 48 are objected to because of the following informalities:

In claims 2-45 and 48, "A" should be changed to --The--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 33 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 33, line 3, it is unclear which dimension of the waveguide is "its larger dimension"? Does the waveguide has two dimension?

Double Patenting

5. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

6. Claim 47 is rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 39 of prior U.S. Patent No. 6,700,542. This is a double patenting rejection.

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., In re Berg, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 24-46 and 48-49 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-40 of U.S. Patent No. 6,700,542. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are similar.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
> (e) the invention was described in-
> (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
> (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

10. Claims 24-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Rothwell, III (USP 6,175,723 B1 of record).

With respect to claim 24, Rothwell discloses, in Figs. 1, 2 or 4, a planar antenna (10, 30, 58) comprising a plurality of antenna elements (12, 34, 60) positioned relative to each other in a predetermined orientation, antenna (??) comprising patches (Fig. 4),antenna (??) comprising patches (Fig. 4),antenna (??) comprising patches (Fig. 4), each of the plurality of antenna elements being selectively electrically connectable to one or more of the other antenna elements (Abstract), a plurality of switches (18, 62; col. 3, lines 29+ or col. 6, lines 9+) electrically connecting the plurality of antenna elements so that closing one of the switches causes at least two antenna elements to be electrically connected (closing either one of the switches will connect two antenna elements together, col. 3, lines 19+), an antenna array (10, 32, 58) defined by the plurality of switches in combination with the plurality of antenna elements characterized in that the antenna elements are positioned on a planar substrate (Fig. 2, col. 6, lines 20+). Note that the recitation "in such a way that at least two different of the antenna are provided by connecting

different antenna" is not a structural limitation to define over prior art that meet the claimed structural limitations.

With respect to claim 25, Rothwell discloses the patches comprising a central patch (Figs. 2, 4) which performs a coupling function to any type of coupling (40, Fig. 2).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rothwell.

With respect to claim 26, it would have been obvious to one having ordinary skill in the art to select the length and width of the other antenna elements for resonating at a particular frequency, since such a modification would have involved a mere change in the sizes of component. A change in size is generally recognized as being within the level of ordinary skill in the art.

13. Claims 29-40 and 43-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rothwell of Grenon et al (USP 6,064,862 of record).

With respect to claims 29, Rothwell discloses every feature of claimed invention except a waveguide being provided for coupling to the antenna. Grenon discloses a waveguide (col. 1, lines 52+). It would have been obvious to one having ordinary skill in the art to couple Grenon's waveguide to couple the antenna of Rothwell in order to delivery transmitting or receiving signals from receiver or transmitter (col. 2, lines 52-65).

With respect to claims 30, Grenon discloses the waveguide comprises a transition (col. 2, lines 63-65) to the planar antenna, which is terminated by a waveguide flange (104, 112, 204, 212, Figs. 1-2).

With respect to claim 33, it would have been obvious to one having ordinary skill in the art to enlarge the waveguide, since such a modification would have involved a mere change in the sizes of component. A change in size is generally recognized as being within the level of ordinary skill in the art.

With respect to claim 34, it would have been an obvious design choice to have the waveguide's aperture in rectangular shape, since such a modification would have involved a mere change in the shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art.

With respect to claims 35-38,

Well known in the art, PIN Diode is a switching element which provide excellent high frequency characteristics (refer to US Pat. No 5,717,399, col.8, lines 35+). Therefore, it would be obvious to select PIN Diode as the switching element, since it has been held to be within the general skill of a worker in the art to select a known device on the basis of its suitability for the intended uses as a matter of obvious design choice.

14. Claims 39-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rothwell in view of McEwan (USP 5,966,090 of record).

With respect to claim 39, Rothwell discloses substantially the claimed invention as noted above in claim 24. Rothwell further discloses the planar antenna comprising a circuitry (36, 38, 42, 40, 46). However, Rothwell does not suggest the circuitry being a Doppler circuitry.

McEwan discloses Doppler circuitry (Abstract, Fig. 8) using in an antenna system (303, 308, Fig. 8) by obtaining one Doppler signal (col. 10, lines 42+) from one measurement device (142). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ Doppler circuitry as taught by McEwan to control the planar antenna of Rothwell. Doing so would make possible the small construction size with simultaneous excellent functional characteristics such as high sensitivity with low transmission power and low emission of harmonics.

With respect to claims 40-42, McEwan discloses the circuitry comprising sample and hold circuits (317, 318, Fig. 8) for sampling the obtained Doppler Signals, and a digital signal processor (PS) for processing the signal.

Allowable Subject Matter

15. Claim 50 is presently allowed.

16. The cited art of record fails to teach the transition comprising the planar antenna comprising a plurality of antennas formed either first, second third or fourth antenna configurations and a plurality of switches, and control circuitry with their connections and functions as defined in claim 50.

Inquiry

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trinh Vo Dinh whose telephone number is (703) 305-4525. The examiner can normally be reached on Monday-Friday from 8:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong, can be reached on (703) 308-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-308-7724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Art unit 2821

Trinh Vo Dinh
December 26, 2005